Department of Public Health and Human Services ENVIRONMENTAL LABORATORY

P.O. Box 4369, Helena, MT 59604 (406) 444-2642 / Toll Free (800) 821-7284 Email MTPHL@MT.Gov

Effective 07/01/2012

PRIVATE WELL TESTING - ORDER FORM

Samples MUST be PAID in ADVANCE. Please INCLUDE A CHECK for the correct amount payable to DPHHS or call with Credit Card Information

TEST NAME – See back of page for explanation of tests			COST	Check here to Request
BASIC SCREEN (Basic_Screen) Coliform and E. coli bacteria Nitrate + nitrite Specific Conductivity	 small 100-mL plastic bottle with tablet for coliform bacteria one 250-mL plastic bottle for nitrate and conductivity Please fill and return both bottles to the laboratory. 		\$40.00	
METALS SCREEN (Wellscan1) Calcium Sodium Copper Magnesium Lead Uranium Hardness Arsenic	- one 250-mL plastic bottle <u>or</u> one 1-liter plastic bottle		\$40.00	
ANION SCREEN (Anion_Screen) Sulfate Alkalinity Fluoride Chloride pH	-one 250-mL <u>or</u> one 1-liter plastic bottle		\$40.00	
VOLATILE ORGANIC COMPOUND SCREEN Presence/Absence of some common hydrocarbons in solvents, fuels, oils (WellVOC)	Must be collected in GLASS CONTAINERS obtained from the lab		\$30	Call for Bottles
PESTICIDE SCREEN (WellPest) Presence/Absence of some common Regulated Pesticides	Must be collected in GLASS CONTAINERS obtained from the lab		\$35	Call for Bottles
HERBICIDE SCREEN (WellHerb) Presence / Absence of some common Herbicides	Must be collected in GLASS CONTAINERS obtained from the lab		\$45	Call for Bottles
FULL WELL SCREEN all of the above Screens	all of the above Screens, at a \$45.00 savings.		\$185	Call for additional <u>Bottles</u>
(Kitchen tap, well head, bathroom sink, etc.) Account #:(if known) Email Add	LECT TIME: : AM PM LECT BY: See Collection Instructions and explanations on the last page of the last page		FOR and test	
Address City	State Zip	Name Address		

Lab #:

Zip

DPHHS Environmental Laboratory

LAB USE ONLY THIS PAGE Amount Rec'd: _____ Date Rec'd: SAMPLE TYPE: Water Soil Paint Fish Fuels Urine Other: _____ Check #: _____ Time Rec'd: Sample pH: Date Check Written: _____ Rec'd By: _____ Sample Temperature: _____ Payer:_____ Sample Approval:_____ Sample Conductivity:_____ Checked by: ____ Check Rec'd By:____ Sample Turbidity:_____ **Number of Bottles Received:** Common DW 508 VOC Pest Wet VOC Screen Herb BacT Nutrients Metals DW 515 DW 531 DW 552 Ions Chem DW 525 THM Screen Screen Holding times observed? Y N SPLITS: (mL) pH Check: Preserved in? Preserved with? - Under 48 hours for IC? Y N Lachat: : 50 250 Metals: L F HNO3 Sample containers in acceptable Y N condition? H2SO4 IC 50 250 Nutrients: L F Sufficient sample volume for all tests? Y N Metals: 50 250 Other: L F 1 2 3 Chain of Custody Level: SPC 250 - Chain of Custody intact? Y N 50 250 Commons VOC/THM zero headspace? Y N

WELL SCREENS

BASIC

TCPA / TCQT / TOTP

 SPC

NO3NO2 / NO3

DISCBASIC

WELLSCAN1

ANION SCREEN

SO4-IC

CL-IC

F-IC

ALK

рΗ

DiscAnion

WELLVOC

WELLPEST WELLHERB

DiscFull

Comments:

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EXPLANATION OF TESTS

The results are suitable for general knowledge of the quality of your drinking water.

BASIC SCREEN - **Coliform bacteria** are naturally present in the environment and are used as an indicator that other, possibly harmful, bacteria may also be present. **E. coli** bacteria is an indication of human or animal fecal contamination. **Nitrate** + **nitrite** can be naturally occurring, but often is associated with contamination from septic systems, animal corrals or feedlots, or runoff from fertilizers. **Specific conductivity** provides an estimate of the amount of minerals dissolved in the water – high conductivity indicates a large amount of dissolved minerals, which could adversely affect the quality of the water.

METALS SCREEN - includes calcium and magnesium, which contribute to hardness; sodium, which may be of interest to individuals on a sodium-restricted diet; zinc, copper, and high-level lead and high-level arsenic. High metals concentration can affect the taste of water, may indicate a corrosion problem, or may lead to the clogging of pipes by hardness deposits. EPA has set drinking water limits for lead at 0.015 parts per million (ppm), and for arsenic at 0.010 ppm. The SCREEN test will detect lead to about 0.005 ppm and arsenic to about 0.005 ppm. Lead and arsenic can be analyzed by a more sensitive method in order to detect lower levels of the metals, for a cost of \$23.00 each.) Uranium in water has an EPA maximum contamination level of 0.03 ppm.

ANION SCREEN – includes sulfate (can cause intestinal problems for those not accustomed to drinking water with high sulfate concentration), chloride (high levels can cause water to taste salty, and along with high hardness concentrations, may increase the likelihood of corrosion), fluoride (important for healthy teeth), alkalinity (buffering capacity of the water), and pH (and indication of how acidic or basic the water is)

VOLATILE ORGANIC SCREEN – detects the presence or absence of hydrocarbons from fuels, oil and solvents in water; use this if you suspect a spill near your water source. Request bottles and collection instructions from the laboratory.

PESTICIDE SCREEN – detects the presence or absence of several common pesticides in water. Request bottles and collection instructions from the laboratory.

HERBICIDE SCREEN – detects the presence or absence of several common herbicides in water. Request bottles and collection instructions from the laboratory

FULL WELL SCREEN – all of the above Screens, at a \$50.00 savings – You must collect Volatile Organic, Herbicide and Pesticide Screen samples in amber bottles obtained from the lab. Please call for these bottles.

Other Bacterial Tests Available for Well Water

IRON BACTERIA - iron levels above 0.3 mg/L may occasionally support the growth of iron bacteria, which may form a reddish brown or yellow slime that can clog plumbing. These bacteria may cause an odor similar to fuel oil or sewage, or occasionally a "rotten egg" odor. Iron bacteria do not cause health problems, but may make the water less palatable and cause plumbing problems.

SULFUR BACTERIA – may be found in conjunction with iron bacteria, and will impart a strong sulfur or "rotten egg" odor to the water.

Each type of bacteria may be tested in the Laboratory at \$25.25 for iron bacteria and \$25.25 for sulfur bacteria. Call the Lab or your local sanitarian's office for sampling containers.

PLEASE INCLUDE A CHECK FOR THE CORRECT AMOUNT WITH YOUR SAMPLES OR CALL WITH CREDIT CARD INFORMATION. SAMPLES WILL NOT BE ANALYZED UNLESS PAID FOR IN ADVANCE.

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COLLECTION INSTRUCTIONS

BASIC SCREEN (two bottles)
METALS SCREEN (one bottle)
ANION SCREEN (one bottle)

Basic Screen:

Bacteria Sample: 100-mL plastic bottle with a small white tablet or bit of white powder in it

Nitrate, Conductivity: 250-mL plastic bottle

Metal Screen: 250-mL or l Liter plastic bottle Anion Screen: 250-mL or l Liter plastic bottle

Combination of Basic Screen and the Metal and/or Anion Screens:

Bacteria Sample: 100-mL plastic bottle with a small white tablet or bit of white powder in it

Other Screens: one 1-Liter plastic bottle

<u>NOTE</u>: Bacteria samples must reach the laboratory **within 30 hours of collection** time. Check your post office for the best mailing times. Keep the sample cool after collection; don't leave it in a hot vehicle.

- Remove the screen from an indoor cold-water faucet
- 2. Clean the inside and outside of the faucet with a bleach solution or with alcohol
- 3. Run the water for 2-3 minutes to clean out the lines
- 4. Reduce the water flow to about pencil size
- 5. Carefully remove the top from the 100-mL bacteria collection bottle, making sure not to touch the inside of the cap or bottle
- 6. Without rinsing the bottle, fill it to the 100-mL mark; leave the white powder or pill in the bottle
- 7. Cap the bottle firmly, mark your name and the sample ID on the bottle with a waterproof pen
- 8. Fill the 250-mL bottle (or the 1-liter bottle) to the neck in the same manner; this bottle does not contain a pill or powder.
- 9. Fill out all the paperwork, include a check for the cost of samples and return the bottle to the lab in the envelope provided.

COLLECTION INSTRUCTIONS

VOLATILE ORGANIC AND HERBICIDE/PESTICIDE SCREENS

This sampling kit includes amber quart sized jars, an amber ½ pint-sized jar, and 3 small glass vials in packing foam. Please follow the instructions below for collecting your sample.

- 1. Freeze the ice packs overnight before sampling. Make sure they freeze flat.
- 2. Glass amber bottles contain preservatives. **Do not rinse them out**.
- 3. Glass vials also contain preservatives; do not rinse them out.
- 4. Take samples from a cold water tap indoors (do not take samples from a hose.)
- 5. Remove the aerator, and allow the water to run for 3 to 4 minutes before sampling.
- 6. Fill the quart amber bottle full to the neck and cap tightly
- 7. Fill the small amber bottle (not the smaller vials) about 2/3 full and cap tightly
- 8. Fill the vials according to the following instructions:
 - a. Fill the vials just to overflowing, being careful not to flush out the quick-dissolving preservative
 - b. Fill the duplicate vial as above (a)
 - c. Cap both bottles tightly, making sure the Teflon side of the cap liner faces toward the sample. Shake the samples vigorously for one minute. Invert the vials and observe if any air bubbles are trapped in it; bubbles will invalidate the sample. If you observe bubbles, uncap the vial and fill with a few more drops of water, cap and recheck for air bubbles until none are apparent.
 - d. There is one bottle that already contains liquid. DO NOT empty this bottle. It is called a trip blank. The analytical method requires that this bottle be filled in the lab and accompany the other two bottles. Please return it with the other two bottles.
- 9. Completely fill out the information sheet included with the kit.
- 10. Repack the cooler so that the bottles will not hit each other and break during transit. The ice packs work well as cushions.
- 11. Tape the cooler securely closed. You may use any carrier for delivery of the cooler to the lab: bus, UPS, Postal Service priority mail, Federal Express or hand delivery.